

# **System and Method for Income Planner**

## **CROSS-REFERENCE TO RELATED APPLICATIONS**

- 5 This application claims priority to U.S. Serial No. 60/286,770 filed 4/26/01 and U.S. Serial No. 09/654,627 filed 9/5/00.

## **BACKGROUND OF THE INVENTION**

### **TECHNICAL FIELD**

- 10 The invention relates to retirement income planners. More particularly, the invention relates to forecasting a customer's income, managing order of withdrawal, forecasting a likelihood that assets at retirement will provide needs for retirement, and providing ability to perform alternative analysis by changing various retirement goals in retirement.

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### **DESCRIPTION OF THE PRIOR ART**

- In the past, retirement was defined as the period following an individual's withdrawal from the labor force. Today, however, most people vary their attachment to the labor force throughout their lives, so retirement may be  
20 thought of differently, for example, in terms of an Accumulation Phase and a Drawing-Down Phase. The Accumulation Phase is the period during which individuals accumulate financial assets. The Drawing-Down Phase is the period during which individuals start using their financial assets to meet their income needs. Most Web and traditional financial advisory products and  
25 services are aimed at people in the Accumulation Phase. Despite the fact

that people in the Drawing-Down Phase are currently among the most wealthy in America, most financial institutions fail to provide a broad range of services dedicated to these individuals and their on-going income (cash flow) management needs.

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As individuals approach or enter retirement their investment objectives shift away from accumulation/growth and move toward income generation. Individuals seek to replace the paycheck they used to receive from their employer. During this phase an individual will generally draw income from multiple sources: part-time employment; company pensions; social security

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benefits; annuities; investments, and the like.

In order to begin to manage their income needs during the Drawing-Down Phase, individuals need to identify and evaluate their existing and potential sources of income. A very important potential source of funds for this group will be investment income. Therefore, identifying the timing and amount of income being currently generated by their investments and evaluating individual investments based on income in addition to traditional risk and return measures is needed in order for this group to manage effectively their overall income needs.

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There is very little in the way of education and advice-type products in the market today that help individuals evaluate their investments based on their overall income needs.

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Except for the assistance of a personal financial planner, very little advice and information addressing this shift to income and retirement risk management exists in the market place.

- 5 Prior art is geared toward providing customers with tools for planning for retirement, as opposed to in-retirement. Much of the prior art focuses on how to get growth in a portfolio.

One prior art reference is T. Rowe Price Associates, Retirement Income

- 10 Manager<sup>SM</sup> Analysis and Recommendation, prepared January 10, 2000, provides specific advice regarding improving the user's probability of success in meeting their in-retirement goals. T. Rowe price uses simulation techniques to identify a retirement income strategy that they believe is best for the client based on the amount of retirement assets the client has and the
- 15 client's personal goals. The output includes four different retirement income strategies: a recommended strategy, two alternative strategies, and the strategy that is most likely to meet the client's monthly income goal. Each strategy includes a recommended pre-tax monthly income, an estimate of the probability that the withdrawal amount can be sustained throughout
- 20 retirement, a product allocation (% in variable annuities and % in mutual funds), an asset allocation for mutual funds, and an asset allocation for variable annuities. They also provide an implementation plan that includes recommendations of specific T. Rowe Price investment products and specific guidance on the amounts to withdraw over time from each account type.

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Following are key assumptions made by T. Rowe's model.

- The client's current portfolio is converted to cash. All taxes and transactions costs are completely ignored in this conversion process;

5 • Cash is invested in one of 13 model asset allocation portfolios;

- Asset classes included in these model portfolios are:

- U.S. large-cap;
- U.S. small-cap;

10 • Investment-grade bonds;

- High-yield bonds;

- Money market securities;

- Foreign stocks; and

- Foreign bonds.

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It should be appreciated that that there is no allocation to municipal bonds because, it appears that tax efficiency is not a goal of the product.

- Asset allocation becomes more conservative over time;

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- Assets are drawn down first from taxable accounts, then tax deferred assets. Roth IRAs are left for last in all analyses;

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- Beginning at age 70 and one half, minimum required distributions are included in the client's income strategy. When the minimum required

distribution exceeds the draw-down amount, the excess is placed in the client's taxable account;

- The projected withdrawal amounts are pre-tax, *i.e.* there is no attempt to adjust for the taxes a client will owe due to the withdrawal;

- Each year, an estimated tax on the appreciation or depreciation of the assets in the client's taxable account is calculated. T. Rowe determines the tax rates (capital gains and ordinary income) used in this calculation and it is not the rate inputted by the client. The return on money market and bond funds is completely taxed at ordinary income rate. The return on stock mutual fund assets is taxed at 60% of the ordinary income tax rate; and

- Returns on key asset classes are normally distributed; T. Rowe determines the future average return on each asset class (according to T. Rowe, they use rates lower than historical rates to be conservative); the historical standard deviations of returns on each asset class and the correlations among asset classes are set at their historical levels. T. Rowe cautions clients that their estimates of probability are probably too high because actual stock return distributions have a higher concentration of returns in the tails of the distribution than is implied by normality.

#### Methodology

1. Simulate 500 future paths for asset class returns.

2. Create investment mixes: a mix consists of a product allocation (mutual funds and variable annuities) and an asset allocation. There are 7 different product allocations and 13 different asset allocations.

3. For each investment mix, define many different levels of monthly withdrawals. A combination of an investment mix and a withdrawal amount is labeled a "retirement income strategy".

4. Subject each retirement income strategy to the 500 investment-return scenarios and calculate the probability that a given level of income can be sustained throughout retirement.

5. The recommended strategy is the retirement income strategy that offers the highest utility, where utility is based on a model of the client's preferences. This model is essentially a scoring system applied to a series of questions regarding the client's financial goals. Alternative strategies include the next highest utility strategy and the strategy that is compatible with the client's risk tolerance that provides the highest level of monthly income. Only strategies resulting in a 70% probability or higher of being able to sustain the withdrawal amount throughout retirement are recommended. The strategy that is most likely to hit the client's monthly income target is also included.

6. Both a retirement counselor and a financial planner review the clients recommended income strategy to make sure the recommendation is consistent with the client's personal profile.

### Key Methodological Weaknesses

- Simulations do not include assets from the client's current portfolio but assumes client liquidates all their securities to bring to T. Rowe.

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- Tax treatment: with the exception of an adjustment to taxable account balances, taxes are ignored throughout the product. The client's own tax rate plays no role in the simulations.

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- Simulations are at the asset class level using indices returns, (i.e. S&P 500 index) to simulate asset class returns. Simulations on T. Rowe Price recommend funds are not performed. However, all recommendations come in the form of T. Rowe Price proprietary funds.

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- Normality assumption: probability estimates will be too high because stock return distributions have more observations in the tails of the distributions than is implied by normality.

- 20
- One "Optimal" withdrawal sequence is forced on all T. Rowe Price solutions - the withdrawal sequence recommendation is not customized.

- No "what-if" type analysis for years in retirement.

- 25
- Does not consider contributions between today and retirement date if retirement date is in the future. The best way for some users to achieve their goals will be to delay retirement or increase their investment amount between now and retirement.

It would be advantageous to provide a system and method that examine actual holdings and actual positions.

- 5 It would be advantageous to provide a system and method that provides a customized optimal withdrawal sequencing recommendation.

It would be advantageous to provide a system and method that provides a depletion to a goal service to a high value of customers.

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It would be advantageous to provide a system and method that focuses on balancing growth and yield, and identifies assets which are providing low yields and low growth rates, as well as providing customers with information which will allow them to make decisions that fit their cash flow needs.

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It would be advantageous to provide a system and method for financial institutions to deliver effectively investment help and advice across its multiple channels to meet customers' full-service investing needs for the near and in-retirement group of customers.

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### **SUMMARY OF THE INVENTION**

This invention provides the customer with information that allows the customer to make decisions that fit their cash flow needs. The invention  
25 forecasts the customer's likelihood of meeting their in-retirement goal based on the actual assets and securities a customer holds at the financial institution



and any assets and securities they holds at other institutions. The invention also manages the order of withdrawal from taxable, tax-deferred and tax free accounts so that the customer defined in-retirement goal is met in an efficient way. For example, if the customer identifies maximizing their estate, as their

5 priority goal, the invention may recommend that those assets in tax-free accounts are withdrawn last while assets in taxable accounts are withdrawn first. The recommended sequence will vary depending on a variety of client-specific factors as well as how the customer prioritizes their in-retirement goals. The invention also forecasts a likelihood that assets at retirement will

10 provide for needs throughout retirement. The invention also provides the ability to perform alternative analysis by reprioritizing various retirement goals, such as preservation of principal, portfolio allocation, amount of income desired or expected length of retirement. The invention also allows for company representatives to output information in a manner that is uniform

15 and consistent across the company. That is, the invention is designed to integrate with other existing or future financial applications of the financial institution, as well as developed on a common system architecture for both World Wide Web (Web) and applications that reside on the desktop of the financial institution's retail branch representatives located nationwide (retail

20 desktops) and phone service representatives.

### **BRIEF DESCRIPTION OF THE DRAWINGS**

Fig. 1 is a schematic diagram showing common architecture according to the invention;

Fig. 2 shows an in-retirement income planner integrating with other tools according to the invention;

Fig. 3 shows a high level schematic diagram for providing an in-retirement  
5 customer with information according to the invention;

Fig. 4 is an example of a customer's findings overview report corresponding to the results of the findings overview according to the invention;

10 Fig. 5 is an example of a customer's summary of findings report corresponding to the summary of findings according to the invention;

Fig. 6 is an example of a customer's current portfolio cash flow report corresponding to the current portfolio cash flow according to the invention;

15 Fig. 7 is an example of a customer's current performance planning report according to the invention;

Fig. 8 is an example of a customer's current summary corresponding  
20 according to the invention;

Fig. 9 is an example of a customer's in-retirement income projection report according to the invention;

25 Fig. 10 is an example of a customer's asset draw down report according to the invention;

Fig. 11 corresponds to the RMD income streams according to the invention;

Fig. 12 corresponds to the RMD income streams according to the invention;

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Fig. 13 is an example of summary of alternatives report according to the invention;

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Fig. 14 is an example of the non-financial alternative according to the invention;

Fig. 15 is an example of the financial alternative according to the invention;

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Fig. 16 is an example of the financial alternative according to the invention;

Fig. 17 is an example of the action plan corresponding to the Alternative II according to the invention;

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Fig. 18 is an example of the action plan corresponding to the Alternative II according to the invention;

Fig. 19 is an example of the action plan corresponding to the Alternative II according to the invention;

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Fig. 20 is an example of the action plan corresponding to the Alternative II according to the invention; and

Fig. 21 is a flow diagram determining a customer's cash flows and portfolio performance according to the invention.

## 5                    **DETAILED DESCRIPTION OF THE INVENTION**

The invention analyzes a customer's assets, focuses on balancing growth and yield, and identifies assets that are providing low yields and low growth rates. The invention provides the customer with information that allows the customer to make decisions that fit their cash flow needs. The invention also forecasts

10 the customer's likelihood of meeting their in-retirement goal based on the actual assets and securities a customer holds at the financial institution and any assets and securities they hold at other institutions. The invention also manages the order of withdrawal from taxable, tax-deferred and tax-free accounts so that the customer defined in-retirement goal is met in an efficient

15 way. For example, if the customer identifies maximizing their estate, as their priority goal, the invention may recommend that those assets in tax-free accounts are withdrawn last while assets in taxable accounts are withdrawn first. The recommended sequence will vary depending on a variety of client-specific factors as well as how the customer prioritizes their in-retirement

20 goals. The invention also forecasts a likelihood that assets at retirement will provide for needs throughout retirement. The invention also provides the ability to perform alternative analysis by reprioritizing various retirement goals, such as preservation of principal, portfolio allocation, amount of income desired or expected length of retirement. The invention also allows for

25 company representatives to output information in a manner that is uniform and consistent across the company. That is, the invention is designed to

integrate with other existing or future financial applications of the financial institution, as well as developed on a common system architecture for World Wide Web (Web), retail desktops, and phone service center desktops.

- 5 An objective of the preferred embodiment of the invention is to help customers create a personalized cash flow withdrawal plan by analyzing their existing assets and using a variety of investment products, and to provide more in depth and specific investment advice, taking into account a host of complicating factors, such as, for example, tax implications, preserving wealth
- 10 as drawn down on principal, cash flow timing, and the like. The invention discussed herein can be used by a financial institution's branch and phone representatives for advising customers in the institution's branch offices and over the phone and can be used directly by customers through the institution's online customer center. The target market of the preferred embodiment of the
- 15 invention is customers with more than \$100,000 in invested assets held at the financial institution or high potential prospected investors.

### One Architecture

- The preferred embodiment of the invention provides for customer interaction
- 20 by three different channels and is discussed with reference to Fig. 1. Fig. 1 is a schematic diagram showing the common architecture according to the invention. By the first channel, customers access the information online through a customer center 10 and are able to use it independently. By the second channel, the customer and a branch representative from the financial
- 25 institution use the invention together in a branch office 11. Likewise by the third channel, the customer and a phone representative from the financial

institution discuss the invention output together over the phone 15. While the underlying income planning functionality and business logic is identical, user interfaces and some features of the invention may differ to accommodate different delivery mechanisms, such as, for example self-service versus 5 assisted service.

The preferred embodiment of the invention is built on a common system architecture 12 for both the Web and retail desktops. The system architecture provides a common customer database 13 for all channels as well as all 10 future tools 14 for linking and sharing information.

In the preferred embodiment of the invention, a customer can use any or all three channels for income planning. For example, a customer is able to follow up on a branch office or phone conversation by using an online version for 15 updating and reviewing the customer's income generating portfolio. Likewise, a customer is able to follow up on a customer center session with branch office or phone conversations.

#### Integrate into Suite

20 The preferred embodiment of the invention integrates robustly into a suite of planning tools that provide financial guidance and advice to the near and in-retirement groups making key life-event decisions. The in-retirement income planner discussed herein fills a large void in the current marketplace as well as enhances a financial institution's advice offering at the retail branch and 25 phone center level as well as the customer center level.

Fig. 2 shows the in-retirement income planner 20 integrating with other tools according to the invention. It builds on and draws from other tools and applications, such as, for example, asset allocation 21, retirement planner 22, and investment verification applications 23 by downloading a customer's position level data.

The preferred embodiment of the invention is flexible and modular so that additional functionality can be added, and to allow for increases in significant volume of customers.

The preferred embodiment of the invention should be consistent in "look and feel" to other applications in the suite of applications discussed above.

#### Business Objectives

The preferred embodiment of the invention can be used by a financial institution to accomplish the following business objectives. The invention:

- Enhances a suite of advisory tools available to branch representatives and helps them in building relationships with customers and addressing their needs;
- Enhances advice, such as planning and guidance, offering in a customer center;
- Promotes customer good-will by providing needed education and advice in the area of income planning to customers;

- Encourages customers to re-evaluate their holdings and to examine additional investment products;
- 5
- Increases the visibility and highlights the benefits of fixed income products as well as annuities; and
- Highlights importance of considering growth and income investment strategies for retirees.

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#### High Level Flow

A preferred embodiment of the invention is described with reference to Fig. 3. Fig. 3 shows a high level schematic diagram for providing an in-retirement customer with information, comprising an action plan, given the customer's current financial information and in-retirement goals. The invention gives the customer a snapshot of how much income the customer's current portfolio is generating, compares that income to the customer's income goal, and directs the customer in narrowing any gap that may exist between the goal and the customer's current income status. Further detail of each of the components in the high level flow is provided in a separate section herein below.

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Referring to Fig. 3, the invention provides a findings overview 101 based on the customer's stated income, estate value, and number of years in retirement goals, as well as the customer's portfolio allocation. A summary of findings 102 is then provided.

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Next a detailed current analysis of the customer's current portfolio is performed 103. Performing current analysis 103 comprises: providing the customer's current portfolio cash flow 104, where the customer's estimated annual cash flow and estimated cash flow gap, if one exists, are shown; 5 current performance planning report, where the approximate current yield and total return information are shown; and current summary, where the difference between the customer's income goal and non-fluctuating sources of income is shown.

10 Next, an analysis of the customer's years in retirement is shown 107. The analysis comprises performing and showing a customer's in-retirement income withdrawal projection 108, where the in-retirement income withdrawal projected incorporates a withdrawal sequencing strategy that best meets the customer's goals; where assets are listed by taxable and non-taxable 15 categories, investment asset draw down 109; and required minimum distribution (RMD) streams 110 are shown. Note: Income projection may include income from capital gains and/or principal.

Next, strategy alternatives are analyzed and shown 111 comprising 20 performing and showing a summary of alternatives 112, where customer information, and pros and cons of two alternatives are shown. Note that Fig. 3 shows one example of many possible alternative recommendations that may result. The alternatives may include but are not limited to the first alternative 113, where the customer's estate goal is relaxed; and the second 25 alternative 114, where the customer's asset allocation is altered. Action plans for the second alternative is then provided 116.

It should be appreciated that the components, current analysis 103, years in retirement 107, and alternatives, could be used separately and individually if given the appropriate input.

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#### Detailed Flow

Further details of each of the components in the high level flow of the preferred embodiment of the invention are described herein below using figures.

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The preferred embodiment of the invention provides a findings overview report, as depicted in Fig. 4. Fig. 4 is an example of a customer's findings overview report corresponding to the results of the findings overview of Fig. 3 101. The findings overview report comprises a heading 201, a table 202, and 15 a chart 203, according to the invention. The heading comprises the title of the report, the name of the customer, and the date.

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The table in Fig. 4 shows the customer's in-retirement income goal 204, the customer's in-retirement estate goal 205, how many years the customer expects to be in retirement 206, the status of the customer's asset allocation 207. The likelihood of success 208 that the customer would meet their defined priority in-retirement goal while all the other goals are held constant is also shown. The priority goal default is set at "meeting the client's estate goal" unless otherwise indicated by the client.

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The chart in Fig. 4 shows an example of the customer's asset draw down schedule according to the invention. That is, the bar chart shows the amounts each of taxable (bottom) 209, tax deferred (middle) 210, and tax free (top) 211 withdrawals for the customer's end of year account balance 212 versus the customer's in-retirement age 213.

The preferred embodiment of the invention provides a customer's summary of findings report, as depicted in Fig. 5. Fig. 5 is an example of a customer's summary of findings report corresponding to the summary of findings of Fig. 3

102. The summary of findings report comprises a heading 301, a summary 302, a chart 303, according to the invention. The summary of findings report shows the customer the likelihood that the customer will meet the desired estate goal, given the customer's in-retirement income needs, years in retirement goal and current portfolio allocation. The summary 302 restates the input into the analysis and the outcome which is the likelihood of the customer meeting a lifestyle goal in retirement. The chart 303 shows the likelihood for meeting the estate goal, as well as the best case 304, the worst case 305, and the expected case 306 results.

The preferred embodiment of the invention provides a current portfolio estimated annual cash flow report, as depicted in Fig. 6a, which shows a 12-month rolling cash flow estimate. An alternative method to depict current portfolio estimated annual cash flow report, Fig 6b shows a 12-month historic rolling estimate. Fig. 6a and 6b is an example of a customer's current portfolio cash flow report corresponding to the current portfolio cash flow of Fig. 3 104. The current portfolio cash flow report comprises a heading 401, a

summary spotlighting the customer's estimated annual cash flow gap (surplus) 402, a bar chart 403, and a table 404 corresponding to the bar chart 403. The estimated annual cash flow bar chart shows the cash flows for a full year, wherein the cash flows are broken down to sources of income. The full year cash flows may be displayed either as a 12 month rolling (Fig. 6a) or a 12 month historic (Fig. 6b) view. In this example, the dividend and interest sources of cash flow are: equity dividend 405, fixed income 406, and cash 407; the non-fluctuating sources of income are: income property 408, social security 409, and pension plans 410. Also shown running across the bar chart is a line at the level of the customer's desired average monthly retirement income goal 411 to help the customer in understanding the cash flow estimate. The cash flow table 404 shows the dollar amount for each month for each source.

The preferred embodiment of the invention provides a current performance planning report, as depicted in Fig. 7. Fig. 7 is an example of a customer's current performance planning report corresponding to the current performance planning report of Fig. 3 105. The current performance planning report comprises a heading 501, a table 502 showing approximate current yield and total return information to help the customer assess their holdings on an income versus growth continuum. Industry indices, such as the Lehman Municipal Bond Index 503 and the S&P 500 Index 504 are benchmarks. Indexes are unmanaged, do not incur management fees, costs and expenses and cannot be invested in directly. The report provides an explanation of the purpose of the table at the bottom of the page 505.

Based on this report, the customer can assess, at a high level, growth versus cash flow balance of the portfolio by examining current yield and total return information for each of the holdings. The report lists individual holdings by current yield to give the customer a perspective on various assets are projected to contribute to the cash flow goal. The report also provides 1-year, 5-year, and 10-year total return information for the financial investments.

The preferred embodiment of the invention provides a current summary report, as depicted in Fig. 8. Fig. 8 is an example of a customer's current summary corresponding to the current summary of Fig. 3 106. The current summary report comprises a heading 601, a section providing an evaluation of the customer's investments, whereby a specialist can assist the customer, and a table 603 showing the customer's estimated annual cash flow breakdown of dividend and interest sources and non-fluctuating sources, compared with the customer's annual goal, and thereby the customer's estimated annual shortfall (surplus) to be met by capital gains.

The preferred embodiment of the invention provides a customer in-retirement income withdrawal projection report, as depicted in Fig. 9. Fig. 9 is an example of a customer's in-retirement income withdrawal projection report corresponding to the in-retirement income withdrawal projection of Fig. 3 108. The in-retirement income withdrawal projection report comprises a heading 701, a bar chart 702 and a corresponding table 703 showing a recommended income stream withdrawal strategy for best meeting the customer's goals. It should be noted that any applicable distribution or income planning

forecasting model may be used. The preferred embodiment uses a tax-savvy or tax-smart withdrawal strategy which maximizes the estate.

The preferred embodiment of the invention provides a customer asset draw down report, as depicted in Fig. 10. Fig. 10 is an example of a customer's asset draw down report corresponding to the asset draw down of Fig. 3 109. The asset draw down report comprises a heading 801, the same asset draw down bar chart of Fig. 4 203 and a corresponding table 802 listing the customer's age, and the dollar amount of withdrawals for each category, and the final projected estate value.

The preferred embodiment of the invention provides a customer required minimum distribution (RMD) chart and explanation report, as depicted in Fig. 11. Fig. 11 corresponds to the RMD income streams of Fig. 3 110. The RMD chart and explanation of Fig. 11 comprises a heading 901 and the chart and explanation 902. Currently, the IRS requires individuals who reach the age of 70 and one-half years to begin taking distributions from his or her IRA or 401K account(s). In the example shown in Fig. 11, based on the value of the customer's tax deferred assets, such as, for example IRAs and 401K, and the minimum distribution calculation method, the actual distributions and the IRS mandated minimum distributions from the customer's tax deferred account did not vary. Sometimes in order to plan for a better estate with better tax advantages, the customer is advised to exceed the RMD from the tax deferred accounts resulting in actual withdrawals that vary from the RMD.

The preferred embodiment of the invention provides a second RMD withdrawal streams report showing a bar chart of the customer's annual 401K/IRA withdrawals and a bar chart showing the customer's corresponding account balance, as depicted in Fig. 12. Fig. 12 corresponds to the RMD withdrawal streams of Fig. 3 110. Fig. 12 comprises a heading 1001, a bar chart of the annual 401K/IRA withdrawals 1002, and a year end 401K/IRA account balance.

The preferred embodiment of the invention provides a summary of alternatives report, as depicted in Fig. 13. Fig. 13 is an example of summary of alternatives report corresponding to the summary of alternatives of Fig. 3 112. Fig. 13 comprises a heading 1101 and a table 1102, having a current analysis column 1103, a first alternative column 1104, and a second alternative column 1105.

15 The first alternative column 1104 shows the result of relaxing one of the goals. Relaxing one of the goals is viewed by one skilled in the art as being a non-financial alternative. In this example, the goal relaxed is the estate goal. The second alternative column 1105 shows the result of moderately altering the customer's asset allocation. Altering asset allocation is viewed by one skilled in the art as being a financial alternative. In this example, the asset allocation was changed moderately.

20 The table shows a Pros row 1106 and a Cons row 1107, which help educate the customer on the impact of the alternatives to the customer's portfolio

position and likelihood and method of meeting their goals, so that the customer can make an informed decision.

The preferred embodiment of the invention provides a report on the non-  
5 financial alternative, as depicted in Fig. 14. Fig. 14 is an example of the non-  
financial alternative corresponding to the Alternative I of Fig. 3 113. Fig. 14  
comprises a heading 1201, a table 1202, and a bar chart 1203. The table  
displays the results of applying the first alternative in a format which compares  
the modified results with the customer's current analysis. The bar chart  
10 displays a modified asset draw down showing an alternative estate 1204 next  
to the current estate 1205. This bar chart 1203 helps the customer to  
visualize the two different draw downs.

The preferred embodiment of the invention provides a report on the financial  
15 alternative, as depicted in Fig. 15. Fig. 15 is an example of the financial  
alternative corresponding to the Alternative II of Fig. 3 114. Fig. 15 comprises  
a heading 1301, a table 1302, and a bar chart 1303. The table displays the  
results of applying the second alternative in a format which compares the  
modified results with the customer's current analysis. The bar chart displays  
20 a modified asset draw down showing an asset allocation modified draw down  
1304 next to the current draw down 1305. This bar chart 1303 helps the  
customer to visualize the two different draw downs.

The preferred embodiment of the invention provides a report on the financial  
25 alternative, as depicted in Fig. 16. Fig. 16 is an example of more information  
than displayed in Fig. 15 corresponding to the Alternative II of Fig. 3 114. Fig.



16 comprises a heading 1401, a section containing pie charts 1402, a section containing explanations 1403, and a section containing the legend for the bar charts 1404. The reports shows the customer the results of analysis discussed, including likelihood of customer achieving in-retirement goal, of the customer reallocating the portfolio taking into account customer preferences, such as, altering the diversification of the customer's portfolio.

The preferred embodiment of the invention provides an action plan report with respect to the customer's financial alternatives, as depicted in Fig. 17. Fig. 17 is an example of the action plan corresponding to the Alternative II Action Plan of Fig. 3 116. Fig. 17 comprises a heading 1401, a section 1502 containing a summary of financial standings and the analysis on the customer's portfolio's assets to aid the customer in deciding an action plan, the action plan comprising activities such as, for example, buying or selling small company holdings.

The preferred embodiment of the invention provides an action plan report with respect to the customer's financial alternative, as depicted in Fig. 18. Fig. 18 is an example of the action plan corresponding to the Alternative II Action Plan of Fig. 3 116. Fig. 18 comprises a heading 1401, a section 1602 containing a summary of financial standings and the analysis on the customer's portfolio's assets to aid the customer in deciding an action plan, the action plan comprising activities such as, for example, buying or selling large company holdings.

The preferred embodiment of the invention provides an action plan report with respect to the customer's financial alternative, as depicted in Fig. 19. Fig. 19 is an example of the action plan corresponding to the Alternative II Action Plan of Fig. 3 116. Fig. 19 comprises a heading 1701, a section 1702 containing a summary of financial standings and the analysis on the customer's portfolio's assets to aid the customer in deciding an action plan, the action plan comprising activities such as, for example, buying or selling international holdings.

10 The preferred embodiment of the invention provides an action plan report with respect to the customer's financial alternative, as depicted in Fig. 20. Fig. 20 is an example of the action plan corresponding to the Alternative II Action Plan of Fig. 3 116. Fig. 20 comprises a heading 1901 and a section 1902 containing the action plan comprising activities such as, for example, buying or selling fixed income holdings.

### An Exemplary Method For Determining Cash Flows and Performance Planning

The preferred embodiment of the invention provides an exemplary method for calculating cash flows and performance planning as discussed with reference to Fig. 21. Fig. 21 is a flow diagram of an end user, such as a customer, or a branch office representative, determining a customer's cash flows and portfolio performance according to the invention. End users can:

- Download/enter/update a customer profile and obtain income goal (2201);

- Import/display/enter/edit a customer's in house accounts (2202);
- Import/display/enter/edit a customer's outside accounts' assets (2203);
- Import/display/enter/edit a customer's other non-security sources of income (2204);
- Graphically display 12-month rolling or historic rolling year cash flow generated from all sources of income by cash flow category and compare to customer's income goal (2205), in bar chart format and table, for example, and choose provided option to view same data on an annual (2206) and monthly basis (2207);
- Graphically display 12 month rolling or historic rolling year dividend and interest cash flow generated from in-house-only accounts by cash flow category and compare to annual cash flow goal (2208), in bar chart format and table, and choose provided option to view the information in greater detail and on an annual basis (2209) and monthly basis (2210);
- Display cash flow including: each security's estimated annual cash flows, current yield, current value, dividend reinvestment status all by cash flow category, relevant cash flow category benchmarks, and a calculation of the total dollar sum of dividends re-invested, *i.e.* foregone cash flow, for the calendar year under analysis (2211);

➤ Display cash flow versus growth performance including: a listing of all assets by approximate current yield, annual income by asset, current yield, one, five, and ten year total return data, current value, and relevant cash flow category benchmarks allowing the customer to compare asset's performance to relevant cash flow category benchmarks and historical performance where appropriate (2212);

➤ View a provided general advice page highlighting under-performing assets consider both growth and income components of each asset's return, and make general recommendations for narrowing/closing cash flow shortfalls (2213); and

➤ View a provided full printed report (2214).

#### 15 Exemplary Method in Detail

The exemplary method, also referred to below as the income planner, for determining cash flows and performance planning is described in further detail below, organized into logical blocks or modules, as follows.

#### 20 **MODULE 1: Complete/Update Customer Profile**

Where possible, the end user downloads a customer's profile of demographic and account information, for example, from previous planning tool sessions. The end user is able to confirm the information and update it manually as necessary. See Table I below for a list of data requirements.

Additionally, in this module, the customer's annual cash flow goal can be ascertained. The attainment of the customer's cash flow goal may differ between retail branch and phone versus customer center tools. The customer seeking the assistance of a branch or phone representative would likely come to his appointment with a number in mind, while the customer center client is more likely to need assistance to calculate this number accurately. It should be appreciated that for the customer center tool it may be appropriate to include additional functionality, such as, for example, income goal worksheets.

## **MODULE 2: Choose Customer In House Account Holdings for use in Income Planning Analysis**

The first step in analyzing cash flow generated by a customer's current portfolio is to evaluate current assets. The invention allows the customer to analyze cash flow from all of the assets in the customer's in house accounts, or a customer-identified subset, as well as any outside accounts/holdings that the customer enters either via other tools or manually.

Wherever possible, the exemplary method determines if the customer has data captured by other tools and imports that data for both in house and outside account data. The method allows the end user, sometimes the customer, to import all relevant information and edit/update the data for each session/interaction. See Table I below for a list of data requirements.

Because a customer may have several accounts in house that the customer would like to include in the cash flow analysis, the end user is able to specify which accounts to include.

- 5 Once the user selects accounts to be included in the cash flow analysis, the method provides for generating reports and tables summarizing all customer's in house positions. The positions are also classified into all relevant asset categories. See below for listing of all six categories.

10 **MODULE 3: Choose/Enter Customer Outside Account Holdings for use in the Income Planning Analysis**

The end user is able to incorporate positions held in outside accounts. The method in-retirement income planner draws on the database for outside holdings when created by in house tools. Hence an end user only has to

- 15 enter outside holdings once.

If the customer has not used in house tools or products, or would like to update holdings information, the method allows the end user to enter any holdings held outside manually.

20

It should be appreciated that the method requires the following information be captured for all holdings:

1. Which financial institution currently houses the holdings, such as, for  
25 example, brokerage Account, Bank Account, and Mutual Fund Company, that is, a name/title must be ascribed; and

2. Is the holding a tax-deferred account, such as, for example, 401(k), IRA, SEP, and the like.

5 Additionally, for mutual funds, equities and bonds, the customer must provide:

- The CUSIP or symbol;
- The number of shares held; and
- Dividends Re-invested (yes/no).

10

The method identifies the ticker symbol or name entered and returns the company/fund name or ticker, respectively. If the user does not enter the CUSIP, the system identifies and stores the CUSIP associated with the entered Ticker symbol on the back end. The CUSIP serves as the income planner's holdings identifier on the back end.

15

The method provides for calculating the total value of the position entered by multiplying the number of shares held by the current price. The method captures the asset's current price through an existing, internal data feed.

20

Current prices are of previous business day's market close. The pricing data feed is be updated nightly.

It should be appreciated that the method captures the tax status of the account in which the investment is held, such as, for example, taxable, tax deferred, and tax-free.

25

It should also be appreciated that the method verifies if a listed outside security is in the database, and if not, the method prompts the user to enter an investment description, dollar amount, and other required information.

5 **MODULE 4: Edit/Enter Customer other non-security income sources for use in the Income Planning Analysis**

As non-financial assets form a critical part of many investor's portfolio, the cash flows generated must also be captured. These sources of cash flow will include items such as social security, income property, and part-time/full-time

10 employment payments. Such investments need to be entered and updated manually.

For **Cash and Other Investments**, the customer must provide:

15 • The security type: name/description of asset: Money Market Mutual Fund, Checking Account, annuity, pension payment, UITs, REITs, options, and the like;

• The current value of the asset where applicable;

20

• Current cash flow Stream; and

• Frequency of Current cash flow Stream.

25 A unique data entry screen is preferred for these investments.



For this module, the user must be able to indicate which specific months the end user expects to receive each cash flow, or indicate if the receipt of cash flow is recurring and thereby set a start/end date. For example, a situation might be if the end user has summer employment the months of June through

5 August only.

#### **Analyze Customer Cash Flow from customer defined portfolio: Modules 2-4**

Once a customer has selected the holdings to be analyzed, the assets are  
10 classified into one of six asset categories:

1. Social Security Cash Flow – customer provided or calculated in house;
2. Income Property Cash Flow – customer provided;
3. Fixed Income Cash Flow – calculated in house from customer data or  
15 customer provided data;
4. Equity Cash Flow – calculated in house from customer data or customer provided data;
5. Cash – calculated in house from customer data or customer provided data;  
and
- 20 6. Other (annuities, pension, post-retirement employment...) in house from customer data.

See Table II below for a mapping of in house positions as defined by issue class ID.

25

The method provides a summary of all the selected investment accounts and holdings under consideration by account and dollar value. In order to ensure that the data captured is, at a minimum, consistent with the data captured by the other tools, it also can capture the tax status of the holdings under consideration. By selecting a specific holding, the user is able to display all positions held within the account and include: symbol/CUSIP, name, quantity, current price, and dollar amount.

Positions held in house as well as outside holdings and other sources of income are classified into one of the six asset categories listed above. The method maps positions to asset categories. The following schema is used to map in house and outside holdings:

- Create a map to aggregate asset class information and map this information into the six asset categories cited above;
- Use any in house classification database to map to asset class;
- For mutual funds, use the ticker symbol to look up the Morningstar fund category and use an existing mapping of Morningstar category to asset class, such as, in Table III below, to determine the asset class. Match mutual fund data to the Morningstar category;
- For individual stocks, use the ticker symbol to look up classification information from the S&P data feed:

- Stocks with an International designation (ADR) should be mapped to the International Equity class;
- Domestic stocks with market capitalization >\$1 billion map to Large Company Equity; and
- Stocks with market capitalization <\$1 billion map to Small Company Equity.

Each time a customer uses the method and enters new data or updates information, the method recalculates all information and generates new tables and charts. If the information changes the results, an mechanism, such as a pop-up window, indicates that the changes due to updated information should appear.

## **MODULE 5: Display Calendar Year Cash Flow from All Sources of Income and Compare to Stated Cash Flow Goal**

Modules 5 through 7 allow the end user to evaluate the current dividend and interest cash flow situation from several views:

- cash flow from all sources of income;
- cash flow from in house holdings; and,
- cash flow from outside holdings.

The tables and analyses in modules 5 through 9, are based on the data entered and calculations performed in modules 2 through 4.

In Module 5, the end user is able to generate a chart displaying a snapshot of the 12 month rolling or historic rolling year dividend and interest cash flow generated by a customer's current portfolio from all sources. The bar chart illustrates the customer's current rolling or historic rolling year cash flow by cash flow category and compares it to the customer's income goal. The chart accompanies a summary of data entered and income goals. The method calculates shortfall or surplus and notifies the user. Disclaimers referencing that the analysis is based on the data provided by the customer and changing market data is provided. The method provides for indicators to inform the customer whether the customer's current assets generate sufficient cash flows or not, for example:

- Goal Met:
- Goal Surpassed:
- Cash Flow Shortfall:

For information on generating additional income/cash flows, the end user is be directed to a Variety of links. The method provides for several avenues for the customer to pursue in narrowing his cash flow gap such as:

- examining the performance of his current portfolio (proceed to the data analysis portion of the planner);
  - re-assess his current asset allocation (provide general guidance on asset allocation, importance of having a growth component to portfolio);
- 5
- consider drawing down on his assets (and/or not reinvesting his dividends); and/or
- 10
- reassessing income needs/goal.

In each of the listed scenarios, the customer has the option to see cash flows in greater detail and viewing these cash flows from a quarterly versus annual view and/or monthly versus annual view. Such detailed views draws

15 customer attention to uneven income flows and, possibly highlight investment vehicles that may help diminish problematic fluctuations.

The method provides the user with information/education on hitting an annual cash flow goal versus the need to smooth monthly cash flows. If the

20 customer's cash flow analysis indicates problematic fluctuations (periods in which the actual monthly cash flow generated falls below the average monthly cash flow goal by 5 percent or more) the customer is alerted. In this case, the customer is provided with information on the pros/cons of various fixed income products, equity categories and the mutual funds. Additionally, email

25 hyperlinks and/or telephone numbers for the other channels of information,

such as, fixed income, stocks, and utilities are provided for the customer center user allowing the customer to obtain more information.

5 An "income goal" line would run through the detail charts to illustrate the difference between the customer's cash flow goal and current cash flow status.

10 The method provides the user with information/education on asset/portfolio allocation and appropriate diversification. It provides links to an asset allocation.

#### **MODULE 6: Display Calendar Year Cash Flow from In House Holdings Only and Compare to Stated Cash Flow Goal (Optional)**

15 Module 6 allows the user to evaluate the customer's current cash flow status from an in house only perspective for business purposes.

20 As in Module 5, in Module 6 the user should be able to generate a chart displaying a snapshot of the cash flow generated by a customer's current in house holdings. The chart illustrates the customer's current 12 month rolling or historic rolling year cash flow by cash flow category and compares it to customer's income goal. The end user has the option to see their cash flows in greater detail by viewing these cash flows from a quarterly versus annual view and/or monthly versus annual view.

As in Module 5, an "income goal" line would run through the detail charts to illustrate the difference between the customer's in house holdings generated cash flow and cash flow goal. A table with supporting detail is provided.

## 5 **MODULE 7: Display Cash Flow Report**

Module 7 serves as a precursor to module 8 in which the user is able to analyze the income and growth performance of the customer's individual assets, engage in a conversation or interactive advice session and, in the future, make recommendations about growth and income investments.

10

In this Module, the income planner constructs a table that lists all the customer's individual assets by cash flow category, summarizes the individual annual cash flows, current yield and total value of each asset. It also displays relevant benchmark data for each cash flow category as a point of reference for the user to assess the status of his cash flow situation.

15

The income planner provides additional education/information on the meaning of the benchmarks and how they might guide a customer's investment decisions.

20

Approximate current yields are calculated based on numbers already made available for module 3, by dividing the total annual dividend income for each asset by the total current value of each respective asset.

25

Additionally, this table notes in which instances dividends are being reinvested and in which instances the customer is accessing the dividends. It

calculates the sum of total forgone income represented by reinvested dividends and calculates what percentage of dividends a customer is currently reinvesting versus accessing. This information highlights potentially overlooked sources of income.

5

The method provides additional education/information on dividend re-investment. While the income planner alerts the customer to the amount cash flow currently being foregone by reinvesting dividends, an indicator highlights the impact on future growth/income of accessing those dividend streams (instead of re-investing them) now. From this information, the user is able to enter different withdrawal (dividend accessing) scenarios and see the impact on the future growth and/or income of his assets.

#### **MODULE 8: Listing Assets by Current Yield (Cash Flow versus Growth Performance Table)**

15

Module 8 takes information provided in Module 7 and lists customer's holdings by yield as well as provides information on each asset's annual income, 1-year and 5-year total returns, and current value. With this information the financial institution eventually is able to make cash flow and growth recommendations to the customer to help the customer generate more income from the portfolio.

20

The method provides an explanation of income versus growth investing. It also provides information from current research on income/growth allocation of a near and in-retirement investor. It also provides a discussion of optimal investment strategies for investors seeking a steady stream of income over a

25



series of years versus increasing likelihood a customer will not run out of money. Users are able to access an asset allocation tool to reassess/reallocate the portfolio.

- 5 This presentation of data allows a branch representative to engage in a conversation about the customer's portfolio and compare individual asset performance to relevant benchmarks. It also allows the user to evaluate the income-generating portfolio. For example, if one of the asset's yields were low, the user would examine the asset's 1, 5, and 10-year total return. For
- 10 assets with approximate current yield and total return both low (failing to capture either income or growth), the in house institution may recommend that the customer divest of that asset and shift resources to better performing investment vehicles or securities.
- 15 The method provides information to the user on how the user might improve the performance of the portfolio. Such applies to users who have a cash flow shortfall as well as those who are meeting/exceeding their goal. The user is assisted in selecting alternative investment vehicles or securities within the given cash flow category/class to replace under-performing ones with links to
- 20 in house tools and services.

By juxtaposing which of the customer's assets' against their relevant benchmark and recommending a course of action, the branch representative or the customer center client advice giving features are able to help the

25 customer enhance portfolio performance. Additionally, the method provides the financial institution with an opportunity to guide customers toward a variety

of investment vehicles that may allow the customer to better meet their in-retirement goals.

### **MODULE 9: Display General Advice Page**

- 5 A general advice page is provided that provides the user with information and general recommendations in an easy to read and understandable summary format. The advice is based on analysis displayed in Modules 8 and 9. The purpose of this module is to identify next steps on how the customer can meet income goals, *i.e.* reduce a shortfall or evaluate current investments.

10

This module:

15

- Provides a set of next steps on how to reduce any shortfall, *i.e.* evaluate current holdings, conduct a general rebalance, examine under-performing assets, reassess objectives and goal;
- Outlines how the financial institution can help in each of the above areas, *i.e.* visit branch representative, use portfolio allocation or rebalancing tools; and
- Provide alternate strategies for fixed income, *i.e.* laddered or dedicated bond portfolio.

20

### **MODULE 10: Provide a Printed Full Report**

Module 10 represents the customer take-away or personalized action plan. The customer is provided with a printed copy of recommendations and guidance and a copy of all the supporting graphs, tables and charts.

5

Table I

Income Planner Data Requirements

	<u>In House</u> <u>Account</u>	<u>Outside</u> <u>Account</u>	<u>Variables</u>
<b><u>Money Market Instruments</u></b>	Yes	Yes	Symbol or identifier or CUSIP
T-Bills (see below)			Name
Fed Funds			Current dollar amount
Commercial Paper			Current yield / interest rate
			Payment period (mo, qtr, etc) – as appropriate
			Maturity Date
			Term
			Par value
<b><u>Checking Account, Cash or</u></b>	No	Yes	Symbol or identifier
<b><u>Cash Equivalents</u></b>			
	Access?		Name
			Current dollar amount
			Current yield / interest rate
			Payment period (mo, qtr, etc)
<b><u>Money Market Mutual Funds</u></b>	Yes	Yes	Symbol or identifier or CUSIP
			Name
			Current shares held
			Current price per share

			Current yield / interest rate
			Payment period (mo, qtr, etc)
<b>Certificate of Deposit (CD)</b>	Yes	Yes	Symbol or identifier or CUSIP
			Name
			Current dollar amount
			Current yield / interest rate
			Date of maturity
			Term
<b>Treasury Bills</b>	Yes	Yes	CUSIP number
(3, 6, and 12 month maturities)			Name
Issued at a discount			Current dollar amount
			Issue Date
			Frequency
			Current yield / interest rate
			Maturity Date
			Term
			Par value
			Purchase price
<b>Treasury Notes and Bonds</b>	Yes	Yes	CUSIP number
			Name
Notes: term 1 to 10 yrs			Number of units owned
Bonds: term 10 to 30 yrs			Current price per unit
Both issued in \$1,000 multiples			Coupon rate
			Issue Date
			Frequency
			Par value

			Maturity date
			Call date
			Dividend Re-invested (yes/no)
			1 year total returns
			5 year total returns
			Credit rating
			Yield to Maturity
			In Default flag
<b>Gov't Agency Bonds</b>	Yes	Yes	CUSIP number
Fed Home Loan Banks			Name
Fed National Mortgage Asso			Number of units owned
Gov't National Mortgage Asso			Current price per unit
Fed Home Loan Mortgage			Coupon rate
Other Gov't Agency CMO's			Issue Date
			Frequency
			Par Value
			Maturity Date
			Call date
			Dividend Re-invested (yes/no)
			1 year total returns
			5 year total returns
			Credit rating
			Yield to Maturity
			In Default flag
<b>Muni Bonds</b>	Yes	Yes	CUSIP number
			Name
			Number of units owned
			Current price per unit

			Coupon rate
			Issue Date
			Frequency
			Par Value
			Maturity date
			Call date
			Dividend Re-invested (yes/no)
			1 year total returns
			5 year total returns
			Credit rating
			Yield to Maturity
			In Default flag
<b>Corporate Bonds</b>	Yes	Yes	CUSIP number
			Name
			Number of units owned
			Current price per unit
			Coupon rate
			Issue Date
			Frequency
			Par value
			Maturity date
			Call date
			Dividend Re-invested (yes/no)
			1 year total returns
			5 year total returns
			Credit rating
			Yield to Maturity
			In Default flag

<b>Preferred Stock</b>	Yes	Yes	Symbol or identifier or CUSIP
			Name
			Number of shares owned
			Current Price per share
			Last Dividend Payment per share
			Dividend payment dates
			Last Dividend Payment Date
			Par value
			1 year total returns
			5 year total returns
<b>Equities</b>	Yes	Yes	Symbol or identifier or CUSIP
U.S.			Name
ADRs			Number of shares owned
Int'l			Current price per share
			All Current Calendar Year Dividend Payments per share
			Dividend payment dates (associated with above payments)
			Frequency
			1 year total returns
			5 year total returns
			Dividend Re-invested (yes/no)
<b>Mutual Funds</b>	Yes	Yes	Symbol or identifier or CUSIP
			Name
			Number of shares owned
			Current price per share

			Last dividend payment per share
			Dividend payment dates
			1 year total returns
			5 year total returns
			Dividend Re-invested (yes/no)
<b>UIT's, REITs</b>	Yes	Yes	Symbol or identifier or CUSIP
Closed-end funds			Name
			Number of shares owned
			Current price per share
			Last dividend payment per share
			Dividend Payment Dates
			1 year total returns
			5 year total returns
			Dividend Re-invested (yes/no)
<b>Variable Annuities</b>	Yes	Yes	Symbol or identifier or CUSIP
			Name
			Number of units owned
			Current price
			Payment
			Payment frequency
			1 year total returns
			5 year total returns
<b>Non Financial Assets with Income</b>			
Real Estate (non REITs)	No	Yes	Name
			Current value



			Current income stream
			Current income stream frequency

Table II

Issue Class	ISSUE CLASS DS	Investment	Income Planner
		Checkup Asset	Cash Flow
		Class	Category
OPTNEQT:		Other	Other
OPTN:	OPTION	Other	Other
OPTNFC:	FOREIGN CURRENCY OPTION	Other	Other
OPTNIND:	INDEX OPTION	Other	Other
OPTNINDB:	BROAD BASED INDEX OPTION	Other	Other
OPTNINDN:	NARROW BASED INDEX OPTION	Other	Other
CORPB:	CORPORATE BOND	Fixed Income	Fixed Income
	CORPORATE BOND COUPON	Fixed Income	Fixed Income
CORPBCPN:			
	CORPORATE BOND CONVERTIBLE	Fixed Income	Fixed Income
CORPBCNV:			
CORPBOD:	CORPORATE BOND ORIGINAL ISSUE DISCOUNT	Fixed Income	Fixed Income
INSRNC:	INSURANCE	Other	Other
MORTBS:	MORTGAGE BACKED SECURITY	Fixed Income	Fixed Income
MONYMI:	MONEY MARKET INSTRUMENTS (MATURITY DATE	Cash	Cash
REALES:	REAL ESTATE	Other	Income Property
USERSEC:	USER DEFINED	Other	Other
INDEX:	INDEX MASTER	Other	Other
CMRCLP:	COMMERCIAL PAPER	Cash	Cash
GOVAGCPN:	GOVERNMENT AGENCY COUPON	Fixed Income	Fixed Income
PRVTD:	PRIVATE DEBT (NO SECONDARY MARKET)	Fixed Income	Fixed Income
PRVTDENV:	PRIVATE DEBT CONVERTIBLE	Fixed Income	Fixed Income
REORGE:	REORGANIZED EQUITY SECURITY	Equity	Equity
GOVAG:	GOVERNMENT AGENCY	Fixed Income	Fixed Income
GOVAGOID:	GOVERNMENT AGENCY ORIGINAL ISSUE DISCOU	Fixed Income	Fixed Income
GOVAGDIS:	GOVERNMENT AGENCY DISCOUNT	Fixed Income	Fixed Income
BANKACP:	BANKERS ACCEPTANCE	Cash	Cash
CD:	CERTIFICATE OF DEPOSIT	Cash	Cash

MONYM:	MONEY MARKET	Cash	Cash
PRFMM:	PREFERRED MONEY MARKET/MUNI PREFERRED	Cash	Cash
CMO:	COLLATERALIZED MORTGAGE OBLIGATION	Fixed Income	Fixed Income
MORTBPT:	MORTGAGE BACKED PASS-THROUGH	Fixed Income	Fixed Income
UIT:	UNIT INVESTMENT TRUST (TRUST FIXED GROU	Other	Other
REORGD:	REORGANIZED DEBT SECURITY	Fixed Income	Fixed Income
WID:	WHEN ISSUED DEBT SECURITY	Fixed Income	Fixed Income
WIS:	WHEN ISSUED EQUITY SECURITY	Equity	Equity
PLEDGE:	OCC PLEDGED SECURITY	Other	Other
BASKT:	BASKET	Other	Other
FUTR:	FUTURE	Other	Other
MIXUNIT:	LIMITED PARTNERSHIP	Other	Other
DUSERSEC:	USER DEFINED DEBT	Fixed Income	Fixed Income
EUSERSEC:	USER DEFINED EQUITY	Equity	Equity
DERV:	DERIVATIVE - FIN INSTR WHOSE VALUE IS	Other	Other
COMDTY:	COMMODITY - BULK GOODS TRADED ON A COMM	Other	Other
DEBT:	DEBT	Fixed Income	Fixed Income
ABS:	ASSET BACKED SECURITY	Fixed Income	Fixed Income
MUNIB:	MUNICIPAL BOND (MUNICIPALITY DEBT)	Fixed Income	Fixed Income
MUNIBCPN:	MUNICIPAL BOND COUPON	Fixed Income	Fixed Income
MUNIBOID:	MUNICIPAL BOND ORIGINAL ISSUE DISCOUNT	Fixed Income	Fixed Income
O:	OPEN ENDED MUTUAL FUND	Equity	Equity
BND:	BOND FUND	Fixed Income	Fixed Income
TREAS:	TREASURY (GOVERNMENT DEPT)	Fixed Income	Fixed Income
TREASBIL:	TREASURY BILL	Fixed Income	Fixed Income
TREASSTR:	TREASURY STRIP	Fixed Income	Fixed Income
TREASCPN:	TREASURY COUPON	Fixed Income	Fixed Income
EQTY:	EQUITY	Equity	Equity
RIGHT:	RIGHT	Other	Other
WARNT:	WARRANT	Other	Other
ADR:	AMERICAN DEPOSITORY RECEIPT	International	Equity
CEMF:	CLOSED END MUTUAL FUND	Other	Other
LIMITP:	LIMITED PARTNERSHIP	Other	Other
REIT:	REAL ESTATE INVESTMENT TRUST	Equity	Income Property
STOCK:	STOCK	Equity	Equity
STOCKCOM:	COMMON STOCK	Equity	Equity
STOCKPRE:	PREFERRED STOCK	Equity	Equity
STOCKCPR:	CONVERTIBLE PREFERRED STOCK	Equity	Equity
CUMCPR:	CUMULATIVE CONVERTIBLE PREFERRED STOCK	Equity	Equity

MMF	MONEY MARKET FUND	Cash	Cash
Else	USER DEFINED DEBT	Other	Other
Synthpre	Synthetic Preferred	Other	Other
WI		Other	Other
Reorg		Other	Other
Treasmk		Fixed Income	Fixed Income

Table III

### Morningstar to In House Mapping Table

Morningstar Category      In House Asset Class      IP      Cash      Flow

5 Categories

	1. Convertibles	Other	Other
	2. Diversified Emerging Markets	International	Equity
	3. Diversified Pacific/Asia Stk	International	Equity
10	4. Domestic Hybrid	Other	Other
	5. Europe Stock	International	Equity
	6. Foreign Stock	International	Equity
	7. High Yield Bond	Fixed Income	FI
	8. Intermediate Government	Fixed Income	FI
15	9. Intermediate-Term Bond	Fixed Income	FI
	10. International Bond	Fixed Income	FI
	11. International Hybrid	International	Equity
	12. Japan Stock	International	Equity
	13. Large Blend	Large Company	Equity
20	14. Large Value	Large Company	Equity
	15. Large Growth	Large Company	Equity
	16. Latin America Stock	International	Equity

	17. Long Government	Fixed Income	FI
	18. Long-Term Bond	Fixed Income	FI
	19. Mid Cap Blend	Large Company	Equity
	20. Mid-Cap Growth	Large Company	Equity
5	21. Mid-Cap Value	Large Company	Equity
	22. Multisector Bond	Fixed Income	FI
	23. Muni National Intermediate	Fixed Income	FI
	24. Muni National Long	Fixed Income	FI
	25. Muni Short	Fixed Income	FI
10	26. Muni Single State Intermediate	Fixed Income	FI
	27. Muni Single State Long	Fixed Income	FI
	28. Pacific/Asia ex-Japan Stock	International	Equity
	29. Short Government	Fixed Income	FI
	30. Short Term Bond	Fixed Income	FI
15	31. Small Blend	Small Company	Equity
	32. Small Growth	Small Company	Equity
	33. Small Value	Small Value	Equity
	34. Specialty-Communications	Other	Equity
	35. Specialty-Financial	Other	Equity
20	36. Specialty-Health	Other	Equity
	37. Specialty-Natural Resources	Other	Classification Equity
	38. Specialty-Precious Metals	Other	Changed to Equity
	39. Specialty-Real Estate	Other	Sm/Med/Lrg Equity
	40. Specialty-Technology	Other	Company Equity
25	41. Specialty-Unaligned	Other	Equity
	42. Specialty-Utilities	Other	Equity

	43. Ultrashort Bond	Fixed Income	FI
	44. World Stock	International	Equity
	45. Emerging Markets Bond	Fixed Income	FI
	46. Municipal New York Intermediate Fixed Income		FI
5	47. Municipal New York Long Term	Fixed Income	FI
	48. Municipal California Intermediate	Fixed Income	FI
	49. Municipal California Long Term	Fixed Income	FI

- Although the invention has been described in detail with reference to
- 10 particular preferred embodiments, persons possessing ordinary skill in the art to which this invention pertains will appreciate that various modifications and enhancements may be made without departing from the spirit and scope of the claims that follow.